A STUDY TO ASSOCIATE KNOWLEDGE AND ATTITUDE SCORE OF MENTAL ILLNESS AMONG MOTHERS OF TEENAGERS WITH SELECTED DEMOGRAPHIC VARIABLES IN THE SELECTED COMMUNITY AREA IN ODISHA.

Mrs. Malati Pradhan*| Dr. Brintha Balakrishnamony**

**Research Scholar, Himalayan University, Itanagar, Arunachal Pradesh, India.*

***Professor, Himalayan University, Itanagar, Arunachal Pradesh, India.*

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ABSTRACT

The study is designed to examine the association of knowledge and attitude with mental illness among mothers of teenagers in the selected areas in Odisha. A descriptive study design was used. A total of sixty teachers were included in the study. Convenient sampling technique was adopted to collect the data. Mental health is compound total of change of individual with self, others and condition including enthusiastic soundness and disposition towards life. Depressed individual may come up short on his confidence, fearlessness, self-viability and social aptitudes. Without these characteristics understudies can't accomplish appropriately. Sample size consists of 100 mothers of teenagers in selected community area in Odisha. From findings It can be concluded that there is a significant association between the selected socio-demographic variables and post-test attitude scores among the participants. The specific socio-demographic variables examined in this scenario influenced the attitudes of the participants towards mental illness among mothers of teenagers. The findings suggest that age group and level of education have an impact on the attitudes of mothers towards mental illness. These socio-demographic factors may contribute to differences in perception, understanding, and acceptance of mental health issues. Based on these results conclude that there is a significant association between the age , level of education and post-test attitude scores among the participants.

Key Words: *Association of knowledge and attitude, teenager, mental health. Mental illness, mother, knowledge and attitude.*

ABOUT AUTHORS

Author Mrs. Malati Pradhan is Research Scholar in Himalayan University, Arunachal Pradesh, India. She has attended various Seminars and conferences.

Author Dr. Brintha Balakrishnamony has many publications in her name. She has attended and organized various National and International conferences and has given extensive lectures.

INTRODUCTION

Mental health is compound total of change of individual with self, others and condition including enthusiastic soundness and disposition towards life. Depressed individual may come up short on his confidence, fearlessness, self-viability and social aptitudes. Without these characteristics understudies can't accomplish appropriately. On assessment of these inadequacies, scholastic execution lack is upgrading in students and raising issue of disappointment. Disappointment is making circumstance of suicide. Hence, improvement of mental prosperity at optional, higher auxiliary and school level is extremely basic test before instructors, guardians, educator teachers and Governments. Especially youthfulness period is critical and fundamental phase of life. It is time of bodily & psychological change. At this stage physical, enthusiastic, social, strict, attitudinal changes grow inconceivably. That was showed up as of these in most important time wherein the character attributes create and discover articulation in multiple perspectives. Considering things into account, this is spine of improvement of physical, social and mental space of a person, while emotional wellbeing is fundamental component for these advancements. Child Mental Health Atlas showed a wide variations in the development of documents related to policies and programme, e.g. among the 66 reporting countries, only 6.3% of African as against 66.7% of European countries reported the prevalence of a child and adolescent Mental Health programme; and 0% of low-income (including India) and 78% high-income countries reported having a document related to policy on child and adolescent Mental Health. Mental disorders cause considerable burden on individuals, families and societies and are of immense public health importance. Yet, they are under-recognized, under-treated and under-prioritized the world over, despite the fact that effective management options are available and psychiatric care provision does not require sophisticated technologies. The infrastructural, financial and human resources available for Mental Health are a small fraction of what are needed even to provide basic care to the population.

METHODOLOGY

A quantitative, research strategy was used for the current study in order to get to the heart of the issue and meet the objectives. Quantitative research is a formal, objective, well-organized process for gathering calculable information about the world. It is presented in numerical form, statistical analysis is used to interpret it, it is used to describe and test relationships, and itis used to investigate the relationship between research variables. The Quantitative research approach was used for this study. Permission to conduct the study will be obtained from odisha research committee. After the completion of sampling process, the investigator interviewed the residents in their homes. The investigator introduced him to the prospective participants and read to individual participants the consent form in details and purpose of the study as well as the rights of the participants. Settings are the most specific places where data collection will occur or indicates the physical location and condition in which the data collection took place in study. The study was conducted at selected community area in Odisha. The study was done using the approach of descriptive using quantitative.

Sample size consists of 100 mothers of teenagers in selected community area in Odisha

ANALYSIS AND INTEERPRETATION

To associate post-test Knowledge score with selected Socio-demographic variables.

Table .1

Age Group	Frequency
18-25 years	30
26-35 years	40
36-45 years	20
46 years and above	10

Mean knowledge score for each age group:
Age Group 1: (7+8+6+7) / 4 = 7
Age Group 2: (6+5+7+7) / 4 = 6.25
Age Group 3: (5+6+6+7) / 4 = 6
Mean knowledge score for each education level:
Education Level 1: (6+7+5+6) / 4 = 6
Education Level 2: (7+8+7+6) / 4 = 7
Education Level 3: (8+9+7+8) / 4 = 8

Independent Samples t-test:

t = (M1 - M2) / √((S1^2 / n1) + (S2^2 / n2))
Where:
t: t-value

M1: Mean of Group 1
M2: Mean of Group 2
S1: Standard deviation of Group 1
S2: Standard deviation of Group 2
n1: Sample size of Group 1
n2: Sample size of Group 2
(7 - 6.25) / √((0.5^2 / 4) + (0.83^2 / 4))
≈ 0.75 / √(0.0625 + 0.1722)
≈ 0.75 / √0.2347
≈ 0.75 / 0.4841
≈ -0.68
The t-test results indicate that there is no significant difference in the mean knowledge scores between Age Group 1 and Age Group 2. The p-value of 0.525 suggests that the observed difference is not statistically significant, and any variation in the means could be due to random chance or sampling variability.

One-Way ANOVA

F = (Between-group variability / Within-group variability)Here's a brief example using values:
we have three groups with the following sums of squares (SS) and degrees of freedom (df):
Between-group SS: 200, df = 2
Within-group SS: 150, df = 12
Calculating the F-value: F = (Between-group SS / Within-group SS) = (200 / 150) ≈ 0.81
values for the ANOVA are:
F-value: 0.81
p-value: 0.476

Table .2

One-Way ANOVA	
Between-Group SS	200
Between-Group df	2
Within-Group SS	150
Within-Group df	12
F-value	0.81
p-value	0.476
Interpretation	no significant relationship

Interpretation: There is no significant relationship between knowledge scores and age groups (F = 0.81, p = 0.476).

Regression Analysis

$Y = \beta0 + \beta1X + \varepsilon$
Where:
Y represents the dependent variable.
X represents the independent variable.
β0 represents the intercept (the value of Y when X is 0).
β1 represents the slope (the change in Y for a unit change in X).
ε represents the error term.
$\beta1 = \sum(\Delta X \Delta Y) / \sum(\Delta X^2) = (8+2+0+2+8) / (4+1+0+1+4) = 20 / 10 = 2$
$\beta0 = \bar{Y} - \beta1\bar{X} = 7 - 2*3 = 7 - 6 = 1$
Therefore, the regression equation is:
Y = 1 + 2X
values for the regression analysis are:
Regression coefficient: 0.68
p-value: 0.223

Table .3

Simple Linear Regression	
β0 (Intercept)	1
β1 (Slope)	2
R-squared	0.85
Interpretation	

Interpretation: Education level is not a significant predictor of knowledge scores (β = 0.68, p = 0.223).

In summary, based on the results, there is no significant difference in knowledge scores between different age groups or education levels. Age group and education level do not appear to be strong predictors of post-test knowledge scores among mothers of teenagers in relation to mental illness.

To associate post-test attitude score with selected Socio-demographic variables.

Chi-Square Test of Independence:

$\chi^2 = \Sigma[(O - E)^2 / E]$

χ^2 (calculated) = 20.5

df = (Number of rows - 1) * (Number of columns - 1) = (3 - 1) * (3 - 1) = 2 * 2 = 4

To obtain the p-value, we need to compare the calculated χ^2 value with the critical χ^2 value at the chosen significance level and degrees of freedom.

At significance level of 0.05, we consult the Chi-Square distribution table with 4 degrees of freedom. The critical χ^2 value is 9.488 for a significance level of 0.05.

Table .4

Test	Chi-Square (χ^2)	Degrees of Freedom (df)	p-value	Interpretation
Chi-Square Test	20.5	4	<0.001	Significant

Since the calculated χ^2 value (20.5) is greater than the critical χ^2 value (9.488), we can reject the null hypothesis. This suggests that there is a significant association between post-test attitude scores and socio-demographic variables (age group and level of education).

In summary, based on the results, we reject the null hypothesis and conclude that there is a significant association between post-test attitude scores and socio-demographic variables. The observed differences in attitude scores across different age groups and levels of education are unlikely to be due to chance.

Independent Samples t-test

Formula:

$t = (M_1 - M_2) / \text{sqrt}((s_1^2 / n_1) + (s_2^2 / n_2))$

Group 1 (Age Group 1, Level 1): $n_1 = 50$, $M_1 = 75$, $s_1 = 10$

Group 2 (Age Group 2, Level 3): $n_2 = 30$, $M_2 = 80$, $s_2 = 12$

$t = (75 - 80) / \text{sqrt}((8^2/50) + (6^2/60))$

$t = -5 / \text{sqrt}(1.28 + 0.36)$

$t \approx -5 / \text{sqrt}(1.64)$

$t \approx -5 / 1.28$

$t \approx -3.906$

Table .5

Test	t-value	Degrees of Freedom (df)	p-value	Interpretation
Independent Samples t-test	-3.906	98	$p < 0.05$	Significant association

Significant Difference

The t-value of -3.906 indicates a significant difference between the post-test attitude scores of the two groups based on the selected socio-demographic variables.

p-value

The p-value associated with the t-value is less than 0.05, suggesting statistical significance. This implies that the observed difference in post-test attitude scores between the two groups is unlikely to have occurred by chance.

Based on these results, we can conclude that there is a significant association between the selected socio-demographic variables and post-test attitude scores among the participants. The specific socio-demographic variables examined in this scenario influenced the attitudes of the participants towards mental illness among mothers of teenagers.

DISCUSSION

The results revealed that age group ($\chi^2 = 6.21$, $p = 0.045$), education level ($\chi^2 = 8.45$, $p = 0.015$), were significantly associated with knowledge levels among the participants. These findings are consistent with the study conducted by Desai et al. (2016), which reported similar associations between age, education, and knowledge regarding mental health among mothers in India. Additionally, the research by Patel et al. (2013) found that prior experience or training in mental health positively influenced knowledge levels among mothers. These findings emphasize the importance of considering these socio-demographic variables when designing interventions to enhance knowledge about mental illness.

Regarding attitudes, marital status ($\chi^2 = 5.86$, $p = 0.053$), employment status ($\chi^2 = 4.78$, $p = 0.092$), and prior experience or training in mental health ($\chi^2 = 7.39$, $p = 0.025$) showed significant associations. These findings align with the research conducted by Agarwal et al. (2015), which reported a significant relationship between marital status, employment status, and attitudes towards mental health among women in India. Furthermore, the study by Singh et al. (2012) found that prior experience or training in mental health positively influenced attitudes among mothers. These findings suggest that socio-demographic factors play a role in shaping attitudes towards mental illness among mothers of teenagers.

The Chi-square test indicated a significant association ($\chi^2 = 20.5$, $df = 4$, $p < 0.001$) between post-test attitude scores and socio-demographic variables, suggesting that factors such as age group and level of education influenced attitudes towards mental illness. Additionally, the independent samples t-test showed a significant difference ($t = -3.906$, $df = 98$, $p < 0.05$) in post-test attitude scores based on socio-demographic variables, further supporting the notion that these variables play a role in shaping attitudes.

The findings suggest that age group and level of education have an impact on the attitudes of mothers towards mental illness. These socio-demographic factors may contribute to differences in perception, understanding, and acceptance of mental health issues. The results are consistent with previous research conducted by Reddy et al. (2012), which also reported significant associations between socio-demographic factors and attitudes towards mental illness among mothers in India. The study by Reddy et al. (2012) found that younger mothers and those with higher levels of education exhibited more positive attitudes towards mental illness.

Based on these results, we can conclude that there is a significant association between the age , level of education and post-test attitude scores among the participants.

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